

**UNITED STATES DISTRICT COURT
FOR THE EASTERN DISTRICT OF TEXAS
MARSHALL DIVISION**

OYSTER OPTICS, LLC, <i>Plaintiff,</i> v.		
CORIAN AMERICA INC. ET AL.,		2:16-cv-01302-JRG-RSP LEAD CASE
INFINERA CORPORATION,		2:16-cv-01295-JRG-RSP
ALCATEL-LUCENT USA, INC.,		2:16-cv-01297-JRG-RSP
FUJITSU NETWORK COMMUNICATIONS, INC.,		2:16-cv-01299-JRG-RSP
CISCO SYSTEMS, INC. ET AL.,		2:16-cv-01301-JRG-RSP
HUAWEI TECHNOLOGIES CO., LTD. ET AL.,		2:16-cv-01303-JRG-RSP
CIENA CORPORATION		2:17-cv-00511-JRG-RSP

Defendants.

JOINT CLAIM CONSTRUCTION AND PREHEARING STATEMENT

Plaintiff Oyster Optics, LLC (“Oyster”) and Defendants Ciena Corporation, Coriant (USA) Inc., Coriant North America, LLC, Coriant Operations, Inc., Infinera Corporation, Fujitsu Network Communications, Inc., Huawei Technologies Co., Ltd., Huawei Technologies USA, Inc., Cisco Systems, Inc., and Alcatel-Lucent USA Inc. (collectively referred to as “Defendants”) hereby jointly provide this Joint Claim Construction and Prehearing Statement pursuant to P.R. 4-3.

I. LIST OF PROPOSED CLAIM TERMS TO WHICH THE PARTIES AGREED ON A CONSTRUCTION (P.R. 4-3(a)).

The parties have agreed to the following constructions:

U.S. Patent No. 6,594,055	
Claim Term/Phrase (asserted claims)	Agreed Proposed Construction
means for transporting the optical signal	<p>This claim term is governed by 35 U.S.C. §112(6).</p> <p>Function: “transporting the optical signal”</p> <p>Corresponding Structure Disclosed in the Specification: optical fiber (2:39-41); optical fiber 20 (Fig. 1, 4:35-38, 4:54-55).</p>

U.S. Patent No. 8,374,511	
Claim Term/Phrase (asserted claims)	Agreed Proposed Construction
the optical signals (claims 1, 9)	“the optical signal transmitted by the transmitter”
the phase-modulated optical signals (claim 9)	“the phase-modulated optical signal transmitted by the transmitter”
an electric signal (claims 1, 9)	“an electrical signal”

U.S. Patent No. 8,374,511	
Claim Term/Phrase (asserted claims)	Agreed Proposed Construction
the electrical signal (claims 1, 9)	“an electric signal” is the antecedent basis for the term “the electrical signal”
the electrical signal after filtering (claims 2, 10)	“the filtered electrical signal”
the electrical signal after scaling is compared (claims 5, 13)	“the filtered and scaled electrical signal”
filtering the electrical signal to produce an average optical power (claims 1, 9)	“filtering the electrical signal from the photodetector to provide the average optical power of the optical signals”

U.S. Patent No. 8,913,898	
Claim Term/Phrase (asserted claims)	Agreed Proposed Construction
the second optical signal (claims 1, 4, 9, 14, 18, 23)	“a second optical signal” is antecedent for “the second optical signal”

II. PROPOSED CLAIM CONSTRUCTIONS BY EACH PARTY FOR THE DISPUTED CLAIM TERMS (P.R. 4-3(b)).

Pursuant to P.R. 4-3(b), the Parties’ proposed constructions of disputed terms are provided in the chart below. The Parties’ proposed constructions are also set forth in the accompanying Exhibit 1, along with the intrinsic and extrinsic evidence on which the parties intend to rely.¹

¹ Defendants object to Plaintiff’s disclosures in this filing. Defendants object to the untimely and inadequate bulk citation to the entirety of multiple IPRs filed by one Defendant, Cisco Systems, Inc. The IPRs are extrinsic evidence, none of which was identified by Plaintiff in its P.R. 4-2 disclosure. Defendants further object to the disclosure of testimony by Dr. Lebby, as the cursory summaries do not provide the detail required by P.R. 4-3. Defendants reserve the right to move to strike this material from the P.R. 4-3 Joint Claim Construction Statement and any material in the claim construction briefing that relies on an inadequate disclosure under the requirements of P.R. 4-2 and P.R. 4-3.

U.S. Patent No. 6,469,816		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
phase modulate (including grammatical variations, <i>e.g.</i> , "phase modulating," "phase modulator," "phase modulated," and "phase modulation") (Claims 1, 7, 12, 19)	No construction necessary. In the alternative, if construed: alter the phase of light to create an optical signal having a phase that is a function of data.	"alter the phase of light while keeping the amplitude of the light constant to create an optical signal having a phase that is representative of data"
energy level detector (Claims 19, 20)	No construction necessary.	"device for optical tap detection"
arm (Claims 1, 19)	No construction necessary.	"optical connection through a splitter, fiber and coupler of an interferometer"

U.S. Patent No. 6,594,055		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
phase modulate (including grammatical variations, <i>e.g.</i> , "phase modulating," "phase modulator," "phase modulated," and "phase modulation") (Claims 1, 7, 14, 15, 17, 27)	<i>See</i> "phase modulate" in '816 Patent above.	<i>See</i> "phase modulate" above.
path length difference (Claims 1, 9, 27)	No construction necessary. In the alternative, if construed: difference in the length of the path.	"difference in the physical length of the path"
path (Claims 1, 2, 9, 10, 11, 14, 19, 22, 27)	No construction necessary.	<i>See</i> "arm" above.
means for phase modulating as a function of an input electronic data stream and a second electronic data stream having a delay, thus creating	This is a means-plus-function term. The function is phase modulating light as a function of an input electronic data stream and a second	This claim term is governed by 35 U.S.C. §112(6). Function: "phase modulating light as a function of an input

U.S. Patent No. 6,594,055		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
a phase-modulated optical signal with encoded information for recovery (Claim 27)	electronic data stream having a delay, thus creating a phase-modulated optical signal with encoded information for recovery. The corresponding disclosed structures are: an exclusive-OR gate (Fig. 2 element 118; 3:1-9; 4:62-65; 5:1-3) and a phase modulator (Fig. 1 element 16; 2:33-34; 3:50-51; 4:42-43).	electronic data stream and a second electronic data stream having a delay, thus creating a phase-modulated optical signal with encoded information for recovery” Corresponding Structure Disclosed in the Specification: controller 18 including a delayed-feedback exclusive-OR gate 118 and a phase modulator 16 receiving the output of the controller 18. ‘055, 4:41-5:7 (describing that phase modulator 16 shifts the phase of the light in response to controller 18, and that controller 18 implements “a delayed-feedback exclusive-OR gate”), Fig. 1 (illustrating phase modulator 16 coupled to controller 18), Fig. 2 (illustrating controller 18 with the delayed-feedback exclusive-OR gate 118).
means for receiving the optical signal from the transporting means[, the receiving means including an interferometer having a path length difference which is a function of the delay in the second electronic data stream] ² (Claim 27)	This is not a means-plus-function term and requires no construction. If construed as a means-plus-function term, the function is receiving the optical signal from the transporting means, and the corresponding disclosed structures are: receiver (2:34-64; 3:25-36;	This claim term is governed by 35 U.S.C. §112(6). Function: “receiving the optical signal from the transporting means” Corresponding Structure Disclosed in the Specification: a receiver including an interferometer

² Oyster and Defendants dispute whether the longer phrase (including the bracketed text) is the proper term for construction. Oyster contends that the longer phrase connotes structure and thus the term is not governed by 35 U.S.C. §112(6). If the term is construed under §112(6), then Oyster proposes a construction of the shorter phrase.

U.S. Patent No. 6,594,055		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
	3:55-60); and receiver 30 (4:54-60; 5:26-6:7; Figs. 1, 3).	having a delay fiber, and an output detector. <i>See</i> '055, 4:54-55 ("Optical signal 22 is transmitted over fiber 20 to receiver 30."); <i>id.</i> , 4:37-38 ("The system 1 includes a transmitter 10, an optical fiber 20, and a receiver 30."); <i>id.</i> , 4:58-60; <i>id.</i> , Abstract ("The receiver has a splitter for splitting the optical signal into a first path and a second path. The second path has a second path length longer than the first path length[.]"); <i>id.</i> , 5:61-66 (describing output detector 38); 6:1-7 ("The interferometer 40 comprising coupler/splitter 34 and 36, fibers 43 and 45, delay fiber 46, and depolarizer 48 thus functions as an optical exclusive-or gate with one input leg delayed for signals arriving at input 41 of coupler 34. Interferometer 40 as a whole thus optically and physically "decodes" the signal OP produced by the delayed-feedback exclusive-or gate 118 of FIG. 2.")

U.S. Patent No. 6,476,952		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
phase modulate (including grammatical variations, <i>e.g.</i> , "phase modulating," "phase modulator," "phase modulated," and "phase	<i>See</i> "phase modulate" in '816 Patent above.	<i>See</i> "phase modulate" above.

U.S. Patent No. 6,476,952		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
modulation") (Claims 1, 4, 5, 12, 13, 14)		
output for altering the phase of the phase modulator (Claim 1)	No construction necessary. In the alternative, if construed: converted signal used to alter the phase of light in the phase modulator.	"converted signal used to modulate the phase of light in the phase modulator"
phase-compensation circuit (Claims 5, 13)	No construction necessary. In the alternative, if construed: circuit that provides phase compensation.	"circuit that enables using an interferometer of any phase- difference"
arm (Claims 1, 4, 11, 13)	No construction necessary.	See "arm" above.
the second arm being longer than the first arm (Claims 1, 13)	No construction necessary.	"the second arm being physically longer than the first arm"

U.S. Patent No. 7,099,592		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
phase modulate (including grammatical variations, e.g., "phase modulating," "phase modulator," "phase modulated," and "phase modulation") (Claims 1, 5, 10, 13, 14)	See "phase modulate" in '816 Patent above.	See "phase modulate" above.
energy level detector (Claims 3, 17)	No construction necessary.	See "energy level detector" above.

U.S. Patent No. 7,620,327		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
the optical signals (Claims 1, 14, 25, 36)	No construction necessary.	"transmitting optical signals" is antecedent for "the optical signals", <i>otherwise</i> Indefinite.
receiver (Claims 1, 14, 25, 36)	No construction necessary.	"photodiode or other photodetector that converts an optical signal to an electrical signal" OR "receiver, excluding receivers that include a demodulator to demodulate the optical signal to produce output data"
phase modulate (including grammatical variations, <i>e.g.</i> , "phase modulating," "phase modulator," "phase modulated," and "phase modulation") (Claims 4, 10, 14, 16, 17, 25, 27, 28, 37)	<i>See</i> "phase modulate" in '816 Patent above.	<i>See</i> "phase modulate" above.
energy level detector (Claims 1, 14, 25)	No construction necessary.	<i>See</i> "energy level detector" above.
OTDR (Claims 13, 24, 35, 39)	optical time-domain reflectometer	"fault detection device that uses non-data bearing, discrete high power pulses via a dedicated transmitter and receiver separate from the data transmitter and receiver."

U.S. Patent No. 8,374,511		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
phase modulate (including grammatical variations, <i>e.g.</i> , "phase modulating," "phase modulator," "phase modulated," and "phase modulation") (Claim 9)	<i>See</i> "phase modulate" in '816 Patent above.	<i>See</i> "phase modulate" above.
OTDR (Claims 8, 16)	<i>See</i> "OTDR" in '327 Patent above.	<i>See</i> "OTDR" above.
receiver (Claims 1, 9)	No construction necessary.	<i>See</i> "receiver" above.

U.S. Patent No. 8,913,898		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
receiver (Claims 1, 14)	No construction necessary.	<i>See</i> "receiver" above.
phase modulate (including grammatical variations, <i>e.g.</i> , "phase modulating," "phase modulator," "phase modulated," and "phase modulation") (Claims 4, 10, 18)	<i>See</i> "phase modulate" in '816 Patent above.	<i>See</i> "phase modulate" above.
energy level detector (Claims 1, 14)	No construction necessary.	<i>See</i> "energy level detector" above.
OTDR (Claims 13, 25)	<i>See</i> "OTDR" in '327 Patent above.	<i>See</i> "OTDR" above.

U.S. Patent No. 9,363,012		
Claim Term/Phrase (asserted claims)	Oyster's Proposed Construction	Defendants' Proposed Construction
OTDR (Claims 1, 5, 9, 11, 16, 17)	<i>See</i> "OTDR" in '327 Patent above.	<i>See</i> "OTDR" above.
line card (Claims 9, 11-17)	No construction necessary.	"card having a transceiver"
tap/tapping/tapped (Claims 1, 3, 5, 12, 13, 16, 17)	No construction necessary.	"illicit breach of an optical signal within an optical fiber that connects a transmitter with a receiver"
phase modulate (including grammatical variations, <i>e.g.</i> , "phase modulating," "phase modulator," "phase modulated," and "phase modulation") (Claims 9, 11)	<i>See</i> "phase modulate" in '816 Patent above.	<i>See</i> "phase modulate" above.

III. ANTICIPATED LENGTH OF TIME NEEDED FOR THE CLAIM CONSTRUCTION HEARING (P.R. 4-3(c)).

Pursuant to P.R. 4-3(c), the parties estimate about four hours will be needed for the claim construction hearing (or as long as the Court needs or desires).

IV. PROPOSED WITNESSES TO BE USED AT THE CLAIM CONSTRUCTION HEARING (P.R. 4-3(d)).

None.

Dated: August 10, 2017

Respectfully submitted,

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CERTIFICATE OF SERVICE

I hereby certify that the counsel of record who are deemed to have consented to electronic service are being served on August 10, 2017, with a copy of this document via the Court's CM/ECF system per Local Rule CV-5(a)(3). Any other counsel of record will be served by electronic mail, facsimile transmission and/or first class mail on this same date.

/s/ Reza Mirzaie

Reza Mirzaie